REMARKS

In accordance with the foregoing, claims 1, 3, 5, 7 and 16 have been amended. Claims 1, 3-7 and 16 are pending and under consideration.

Examiner Interview

Applicants thank Examiner Chu for granting the Examiner's Interview conducted on March 19, 2008. In light of the understanding of the claims and the prior art discussed at the Examiner's Interview, Applicants herein provide the following amendments and remarks.

REJECTIONS UNDER 35 U.S.C §103

Claims 1, 3-6 and 16 stand rejected under 35 USC §103(a) as being unpatentable over Son et al. (Son), U.S. Patent No. 6,282,161, in view of Erbert, U.S. Patent No. 4,727,533. This rejection is respectfully traversed.

Son describes a tilt controlling unit which stores in memory only two optimum tilt adjustment values corresponding to two points of the optical pickup spaced apart from each other along the radial direction of the disk. The tilt angle is adjusted by interpolation of the two obtained optimum tilt adjustment values. See col. 2, lines 35-44 of Son. Son is directed towards overcoming the problem of disk drives requiring large displacement sensors by providing a tilt correction method that does not measure actual displacement each time tilt is detected; rather tilt correction is only interpolated from the two optimum tilt adjustment values recorded in memory. See col. 7, lines 39-41.

Amended Claim 1 at least recites:

> A method of correcting a tilt in a disc drive, the method comprising:
>
> detecting a tilt of a disc loaded in the disc drive;
>
> searching a memory in the disc drive for a tilt angle for a recording or reproducing sector of the disc in which the tilt is detected;
>
> calculating a tilt angle for the recording or reproducing sector based on the detected tilt of the disc if no tilt angle is found in the memory;
>
> correcting the tilt of the disc; and
>
> storing the calculated tilt angle in the memory so that the calculated tilt angle is used for the recording or reproducing sector,
>
> wherein if a tilt angle is found in the memory, the tilt of the disc is corrected using the found tilt angle, and if the tilt angle is not found

in the memory, the tilt of the disc is corrected using the calculated tilt angle,

the recording or reproducing sector of the disc is based on information on the position of a pickup based on the number of pulses for driving a motor for controlling movement of the pickup in the disc drive, and

wherein the memory stores the tilt angle for recording or reproducing sectors which require tilt correction.

First, as discussed at the Examiner Interview, Applicants respectfully submit that the claimed "detecting a tilt of a disc," is "for a recording or reproducing sector of the disc," since the searching is "for a recording of the disc in which the tilt is detected." Thus, claim 1 recites "detecting" and "correcting" a tilt "for a recording or reproducing sector of the disc."

The Office Action appears to be interpreting the memory 38 of Son storing values "S_inrec and S_outrec," with the claimed "storing the calculated tilt angle in the memory."

The memory of Son, as described in col. 7, lines 22-25, stores only the optimum displacement values S_inrec and S_outrec, in which the jitter of the inner and outer circumferences, respectively, of the disk, are minimized are stored in the memory. Thus, two values are stored in the memory of Son, these values corresponding to the inner and outer circumferences of the disk.

In contrast, amended claim 1 recites: "wherein the memory stores the tilt angle for recording or reproducing sectors which require tilt correction." Applicants respectfully submit that optimum displacement values of only of the inner and outer circumferences of a disk described in Son cannot be equated with the "memory stores the tilt angle for recording or reproducing sectors which require tilt correction," as claimed.

Further, the Office Action appears to be interpreting the claimed "searching a memory in the disc drive for a tilt angle for a recording or reproducing sector of the disc in which the tilt is detected" as being met by the storing of the S_outrec and S_inrec optimum displacement values of Son. Applicants respectfully submit that the claimed "searching a memory" cannot be equated to the storing of two optimum displacement values corresponding to the inner and outer circumferences of a disk, described in Son.

Still further, the Office Action appears to be interpreting the claimed "calculating a tilt angle for the recording or reproducing sector based on the detected tilt of the disc if no tilt angle is found in the memory" with step 714, FIG. 7 of Son. Applicants are unable to find in Son where the calculating described in FIG. 7, step 714 is conditional upon "no tilt angle is found in

the memory." In contrast, FIG. 7, step 714 is part of a flowchart with no conditional paths, rather flow always continues to step 714, and a calculation of the tilt control value is thus always performed as part of the method described in Son. Therefore, Son fails to teach or describe at least "calculating a tilt angle ... if no tilt angle is found in the memory."

Additionally, the claimed "wherein if a tilt angle is found in the memory, the tilt of the disc is corrected using the found tilt angle, and if the tilt angle is not found in the memory, the tilt of the disc is corrected using the calculated tilt angle," is not taught or suggested in FIG. 7, steps S710-S716 of Son, as no conditionals are indicated in this flowchart either.

Applicants respectfully submit that Erbert fails to teach or discuss the above described deficiencies of Son.

Thus, Applicants respectfully submit that claim 1 and claims 3-6 and claim 16 which at least recite similar features in varying scope and breadth patentably distinguish over Son and Erbert, whether considered alone or in combination.

Withdrawal of this rejection and favorable reconsideration of the claims are respectfully requested.

Claim 7 stands rejected under 35 USC §103(a) as being unpatentable over Son et al., in view of Erbert, and Nishiwaki, U.S. Patent No. 6,704,254. This rejection is respectfully traversed.

The Office Action states that "Son in view of Erbert teaches a tilt correcting apparatus very similar to that of the present invention as recited in claim 7" but states that Son and Erbert fail to teach or suggest "tilt correcting method is implemented by a computer readable medium encoded with processing instructions," stating that Nishiwaki cures this deficiency.

Claim 7 at least recites features similar to claim 1, in varying scope and breath, and thus Applicants submit that for at least the reasons above regarding claim 1, claim 7 patentably distinguishes over the cited art Son, Erbert and Nishiwaki.

Withdrawal of this rejection and favorable reconsideration of claim 7 are respectfully requested.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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